

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants	Marc R. Amling, <i>et al.</i>
Application No. 10/034,273	Filing Date: December 28, 2001
Title of Application:	Replaceable Hardware Component of a Camera Control Unit for Video Systems
Confirmation No. 9457	Art Unit: 2622
Examiner	Timothy J. Henn

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Reply Brief Under 37 CFR §41.41

Dear Sir:

Having received the Examiner's Answer, Appellant submits this Reply Brief for the above-captioned application pursuant to 37 C.F.R. §41.41 as follows.

Most of the arguments presented in the Examiner's Answer were presented during prosecution, and thus, have already been dealt with in Appellant's Appeal Brief. Appellant submits this Reply to briefly elaborate on issues raised in the Examiner's Answer.

Claims 1 & 17 - Mochida et al. in view of Nakamura et al.

1. No Detachable Configurable Component Having A Processor As Claimed

The examiner has stated with regard to claim 1 that “the claim as written does not explicitly define the structure of the detachable configurable component other than that it must include a processor” and that “the claim as written does not define how the processor configures the detachable configurable component.” (Examiner’s Answer, p. 13). However, claim 1 recites “said camera control unit receiving said software program and overwriting an existing software program on said processor, said processor configuring said detachable configurable component for processing the image data.” Accordingly, it is the software program that provides the processor with the information to properly configure the configurable component. Therefore, the detachable configurable component includes a processor that receives instructions (in the form of a software program) and once received, the processor configures the configurable component so that it can receive and process image data.

The examiner goes on to say that with “respect to Mochida, it is believed that the expansion substrate in its entirety may be considered a “detachable configurable component as claimed (Figure 1, Items 41-43 and Figure 28, Item 451)” and that “expansion substrate includes an FPGA which processes image data (i.e. a processor).” (Examiner’s Answer, p. 13). The examiner then concludes that “[s]ince the state of the FPGA determines which functions will be applied to the incoming data, it in effect, “configures” the expansion substrate 451 to process image data in a certain manner (note the data register 73, FPGA 452 and amplifier 58 all cooperate to process the image data).” (Id.) In effect, the examiner is saying that the configurable portion of the substrate equates to the processor of claim 1, and the various other electronic devices (e.g. data register 73, amplifier 58, etc.). However, this reading of Mochida et al. does not comport with what it actually teaches. For example, Mochida et al. states, the FPGA is not programmed by itself, rather, it states that a “CPU or the like is used to program the actions performed in

the digital IC” and specifically that “*control unit 44* loads any data into the FPGA 452 . . . and thus finalizes a facility to be realized with the internal circuits of the FPGA 452.” (p. 11, par. 229; p. 12, par. 237) (emphasis added). It further can be seen that “control unit 44” is shown on “main substrate 7” and “FPGA 452” is shown on “expansion substrate 451.” (FIG. 28; p. 5, par. 136; p. 12, par. 233). Therefore, to state that the FPGA either programs itself, or the other pieces of electronics on the substrate is refuted by the teachings of Mochida et al.

The examiner next turns to Nakamura et al. stating that “the FPGA is overwritten with a received program or “programmed” according to received data to apply a desired image processing routine as claimed.” (Id.) Appellant is not sure how this statement supports the examiner’s conclusion, but Nakamura et al. certainly does not disclose or teach a removable configurable component having a processor, where the processor receives a software program that overwrites an existing program and once the processor is programmed, the processor configures the configurable portion of the detachable configurable component.

Accordingly, the examiner’s conclusion that the FPGA configures itself or other components on the substrate simply ignores the teachings of Mochida et al. that “*control unit 44* loads any data into the FPGA 452.” (p. 11, par. 229; p. 12, par. 237) (emphasis added). While the examiner had the opportunity to address these statements and citations by Applicant, the examiner simply chose to ignore them. Notably, the examiner has provided absolutely no evidence or cited to any portion of Mochida et al. to refute Appellant’s evidence.

Claim 22 - Stenberg et al.

The examiner has submitted that “while Appellant argues that all devices must be present for the device to function, this limitation is also not found in the claims as written. (Examiner’s Answer, p. 16). Appellant presented this information to the examiner

to explain that the examiner's reading of Stenberg et al. would result in a nonfunctional system (e.g. the compiling of the various features suggested by the examiner in the manner the examiner is suggesting would not result in a functioning system).

Originally this rejection was listed under 35 U.S.C. §103(a), but the examiner has submitted that this should be addressed under 35 U.S.C. §102(e). (Examiner's Answer, p. 15). Appellant respectfully submits that rejection is not appropriate under either category.

If the examiner is rejecting the claims under 35 U.S.C. §102(e), then Appellant submits that though the Examiner has pointed to the appearance in the Stenberg et al. reference of specific components recited in original claim 22, the mere appearance of specific structural components in isolation in a reference does not make it an anticipatory reference. *See Ex parte Beuther*, 71 U.S.P.Q.2d 1313, 1316 (BdPatApp&Int 2003) (unpublished) ("It is well settled, however, that anticipation is not established if in reading a claim on something disclosed in a reference it is necessary to pick, choose and combine various portions of the disclosure not directly related to each other by the teachings of the reference.") (citing *In re Arkley*, 455 F.2d 586, 587-88, 172 U.S.P.Q. 524, 526 (C.C.P.A. 1972)). The Stenberg et al. reference does not disclose the system recited in claim 22, and applicant respectfully submits that the Examiner has not indicated how the claim elements of claim 22 are shown in the Stenberg et al. reference, but rather, has simply pointed to the random appearance of specific structural components (e.g., connection of either the camera 12 or PC 14 can be connected to port 20 but not both at the same time). The examiner suggests that even though Stenberg et al. discloses/teaches that the camera cannot be connected to port 20 at the same time as the PC, that the various elements can be equated to the limitations of claim 22. This despite the fact that Stenberg et al. clearly states that interconnection of the devices as suggested by the examiner is impossible. Accordingly, Appellant respectfully submits that as Stenberg et al. discloses/teaches that such a configuration is impossible, picking

and choosing to combine unrelated elements in a manner rejected by the reference cannot result in an anticipatory reference.

It is also not proper to reject claim 22 under 35 U.S.C. §103(a). It is well settled that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. MPEP 2143.01; *In re Gordon*, 733 F.2d 900, 221 USPQ2d 1125 (Fed. Cir. 1984). In the present case, Applicant respectfully submits that Stenberg et al. clearly states that such a modification would not result in a functioning product and, in fact, based on the current configuration of taught in Stenberg et al., would be impossible. In fact, the examiner noted that “Appellant argues that the detachable configurable component of Steinburg cannot be simultaneously connected to both the camera control unit and the camera through port 20.” The examiner then acknowledged that “[w]hile this may be true, that Steinburg describes a second communication link for communicating between the camera 12 and the detachable configurable component 10 (Figure 1, Item 44)” and that the “detachable configurable component may be simultaneously connected to the camera using link 44 and the camera control unit using link 26.” (Examiner’s Answer, p. 16). It appears the examiner is suggesting that the camera 12 may be simultaneously connected to and function with device 10 and PC 14 per claim 22.

Nowhere does Stenberg et al. disclose or teach that camera 12 can be simultaneously connected to device 10 and PC 14. Appellant has can find no reference to support the examiner’s assertion for this. The examiner appears to acknowledge this where he states that “the claim as written does not require simultaneous connection or communication as argued.” (Examiner’s Answer, p. 16). Appellant respectfully disagrees. Claim 22 recites that the camera control unit is coupled to the camera, that the camera control unit has a detachable configurable component, and that the image data transmitted from the camera to the camera control unit is processed by the detachable configurable component to produce a video. Disconnection of the camera from the

camera control unit or disconnection of the detachable configurable component from the camera control unit would result in a non-functional system. This cannot properly be viewed as “obvious.”

While the examiner has submitted that “claims are interpreted in light of the specification, limitations from the specifications are not read into the claims.” (Examiner’s Answer, p. 17). Appellant agrees with this statement. However, Appellant also submits that it is improper to ignore a combination of functional elements recited in a claim such that the device as interpreted by the examiner, results in a non-functional system. Obviousness requires “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385 (2007). Here, the examiner has not provided a reason that would have prompted the skilled worker to have arranged them in the manner necessary to reach the claimed invention (or is re-arranging/ignoring claim limitations resulting in a system that cannot function so as to fit a cited reference(s) for purposes of making an obviousness rejection).

Respectfully submitted,

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